

CLAIMS

1. An information terminal apparatus for providing positional information, comprising:

5 an image data storage block for storing actually taken image data of a plurality of geographic points in an area for which positional information is provided;

a positional information database for storing correlation data between an identifier of image data stored in the image data storage block and positional
10 information;

a positional information capture block for capturing a position of an information terminal apparatus;

a control block for executing processing of obtaining, based on positional information obtained from the positional information capture block, an image data
15 identifier corresponding to the positional information from the positional information database and, based on the obtained image data identifier, obtaining actually taken image data from the image data storage block; and

a display block for displaying the actually taken image data obtained by the control block.

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2. An information terminal apparatus according to claim 1, wherein:

the actually taken image data stored in the image data storage block includes an actually taken panoramic image corresponding to the positional information; and

the information terminal apparatus includes an input block through which a
25 display area for the panoramic image displayed on the display block is changed.

3. An information terminal apparatus according to claim 1, wherein:

the actually taken image data stored in the image data storage block includes actually taken image data in a plurality of directions corresponding to the positional
30 information;

the control block executes processing of outputting the actually taken image data in a plurality of directions corresponding to the positional information to the display block based on a position of the information terminal apparatus; and

the information terminal apparatus includes an input block for executing
5 processing of selectively displaying the actually taken image data in the plurality of directions displayed on the display block.

4. An information terminal apparatus according to claim 1, further comprising:

10 a route detection block for executing route search processing based on a current position and a destination;

wherein, based on a plurality of pieces of positional information along a route based on route information obtained by entering a current position and a destination from the route detection block, the control block executes processing of
15 obtaining a plurality of image data identifiers corresponding to a plurality of pieces of positional information from the positional information database, obtaining a plurality of actually taken image data along the route on the image data storage block based on the obtained plurality of image data identifiers, and displaying the plurality of actually taken image data along a route onto the display block in one of
20 a sequential parallel manner and a sequential manner.

5. An information terminal apparatus according to claim 1, wherein:

the positional information capture block executes processing of obtaining latitude and longitude information of the information terminal apparatus;

25 the positional information database stores correlation data between an identifier of image data stored in the image data storage block and the latitude and longitude information as positional information; and

the control block, based on the latitude and longitude information obtained from the positional information capture block, executes processing of obtaining an
30 image data identifier corresponding to the latitude and longitude information from the positional information database.

6. A navigation system for providing positional information through a network, comprising:

5 a server for providing positional information, an information terminal apparatus for receiving positional information, and a base station for executing communication and relay processing between the server and the information terminal apparatus; wherein

10 the server includes an image data storage block storing actually taken image data at a plurality of geographic points in an area for which positional information is provided, a positional information database storing correlation data between an identifier of image data stored in the image data storage block and positional information, and a file selection block for executing processing of obtaining, based on positional information received through the base station, an image data identifier corresponding to the positional information from the positional information
15 database and obtaining actually taken image data from the image data storage block based on the obtained image data identifier;

the base station includes a regional information management block for managing information including the positional information of itself and, based on an inquiry for a position from the information terminal apparatus, executing
20 processing of transmitting positional information stored in the regional information management block to the server; and

the information terminal apparatus includes a communication block for transmitting a positional inquiry to the base station and receiving actually taken image data obtained based on the positional information in the server, and a display
25 block for displaying the actually taken image data.

7. A navigation system according to claim 6, wherein:

the actually taken image data stored in the image data storage block of the server is an actually taken panoramic image corresponding to the positional
30 information; and

the information terminal apparatus includes an input block through which processing of changing a display area of the panoramic image displayed on the display block occurs.

5 8. A navigation system according to claim 6, wherein:

the actually taken image data stored in the image data storage block of the server are actually taken image data in a plurality of directions corresponding to the positional information;

the file selection block executes, based on the positional information,
10 processing of selecting the actually taken image data in a plurality of directions corresponding to the positional information; and

the information terminal apparatus includes an input block through which the actually taken image data in the plurality of directions to be displayed on the display block are selectively displayed.

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9. A navigation system according to claim 6, wherein:

the server further includes a route detection block for executing route search processing; and

the file selection block of the server executes, based on a plurality of pieces
20 of positional information along a route based on route information obtained from the route detection block, processing of obtaining a plurality of image data identifiers corresponding to the plurality of pieces of positional information from the positional information database, obtaining a plurality of actually taken image data along a route from the image data storage block based on the obtained plurality
25 of image data identifiers, and generating data for displaying the plurality of actually taken image data along the route in one of a sequential parallel manner and a sequential manner.

10. A navigation system according to claim 6, wherein:

30 the regional information management block of the base station stores latitude and longitude information of itself;

the positional information database of the server stores correlation data between an identifier of image data identifier stored in the image data storage block and the latitude and longitude information as positional information; and

5 the file selection block executes, based on the latitude and longitude information obtained from the base station, processing of obtaining the image data identifier corresponding to the latitude and longitude information from the positional information database.

11. An information processing method for displaying positional
10 information on an information terminal apparatus, the method comprising the steps of:

obtaining a position of the information terminal apparatus;

searching a positional information database storing correlation data between
an identifier of image data stored in an image data storage block and positional
15 information, based on the obtained positional information, to retrieve an image data identifier corresponding to the positional information;

obtaining actually taken image data, based on the retrieved image data
identifier, from an image data storage block storing actually taken image data at a
plurality of geographic points in an area for which positional information is
20 provided; and

displaying the obtained actually taken image data.

12. An information processing method according to claim 11, the
method further comprising the steps of:

25 detecting a route based on a current position and a destination;

obtaining a plurality of image data identifiers corresponding to a plurality of
pieces of positional information from the positional information database based on
a plurality of pieces of positional information along the route based on route
information obtained in the route detection step, and obtaining a plurality of
30 actually taken image data along the route from the image data storage block based
on the plurality of obtained image data identifiers; and

displaying the plurality of actually taken image data along the route in one of a sequential parallel manner and a sequential manner.

13. A computer program coded for executing, on a computer system,
5 information processing for displaying positional information on an information terminal apparatus, comprising the steps of:

obtaining a position of the information terminal apparatus;

searching a positional information database storing correlation data between
an identifier of image data stored in an image data storage block and positional
10 information, based on the obtained positional information, to retrieve an image data identifier corresponding to the positional information;

obtaining actually taken image data, based on the retrieved image data
identifier, from an image data storage block storing actually taken image data at a
plurality of geographic points in an area for which positional information is
15 provided; and

displaying the obtained actually taken image data.